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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,283	10/28/2003	Robert Richard Dykstra	9086M	3960
27752 7590 09/14/2010 THE PROCTER & GAMBLE COMPANY Global Legal Department - IP Sycamore Building - 4th Floor 299 East Sixth Street CINCINNATI, OH 45202				
EXAMINER				
GRESO, AARON J				
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1796				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/695,283

**Applicant(s)**

DYKSTRA ET AL.

**Examiner**

AARON GRESO

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1, 6-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 6-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/CD)  
Paper No(s)/Mail Date \_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

### **DETAILED ACTION**

The new grounds of rejection set forth below are necessitated by applicant's amendment filed on 01 July 2010.

In particular, Claim 1 and its dependent Claims, 6-9 have been amended to now additionally require the ratio amounts of non-cationic monomer to cationic monomer to be within a defined range; the range not being indicated in any previous claim but is instant Specification supported. The amendment further requires that the benefit agent be, more specifically, a top note perfume material instead of a perfume raw material ingredient or accord composition.

The newly amended claims were not present at the time of the preceding action. For this reason, the present action is properly made final.

A reply to the Applicants' arguments is presented after addressing the Claims.

References previously cited are provided in a previous Office Action PTO 892 form. References not previously cited are found per the attached PTO-892 for this Office Action.

Any rejections and/or objections made in the previous Office Action and not repeated below, are hereby withdrawn.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

***Claim Rejections - 35 USC § 103***

1. Claims 1 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hood et al. (US 2002/0058015); as evidenced by Combariza et al. (Journal of High Resolution Chromatography 1994 vol 17 pp 643-646), and the International Journal of Toxicology (1982 Vol 1 no 4 pp 55-80); in view of Rollat et al., and further in view of Guskey et al. (US 6040282).

2. Regarding Claim 1:

Claim 1 has 11 limitations (A-K); the limitations are listed and labeled below in the order in which they appear:

- A. Non-encapsulated benefit delivery system
- B. Aqueous dispersion of a water insoluble polymer particle and a benefit agent
- C. The polymer particle has a glass transition temperatures from 50 to 120°C
- D. At least one cationic monomer
- E. One or more non-cationic monomer
- F. Weight ratio of cationic to non-cationic monomer is about 10 : 0.02 to 5 : 2.5
- G. Benefit agent and polymer are non-polymerically associated
- H. Response Factor (RF) of benefit agent, when placed upon the polymer is about 1.5 when measured by test Protocol I or II.
- I. Benefit agent is selected from group consisting of top note perfume raw materials and perfume accords having a Kovat's Index from about 1000 to about 1400
- J. Dispersion [system] further comprising a colloidal stabilizer
- K. Dispersion [system] having a viscosity in a range between 7,000 and 10,000 cps.

3. Hood et al., teach a non-encapsulated benefit agent delivery system comprising an aqueous dispersion of a water insoluble polymer particle and a benefit agent wherein the polymer particle comprises at least one cationic monomer and one or more non-cationic monomers (Abstract, paragraphs 0020, 0027) {addressing A and B}. Hood et al., also teach the polymer and benefit agent non-polymerically associated in a liquid matrix (paragraph 0027) {addressing G}.
4. In addition, the amount of a water soluble polymer material, that is subsequently crosslinked (paragraph 0025), also contains a water insoluble polymer material that is indicated to be crosslinked (paragraph 0023) while further indicated to comprise quaternized functionality (paragraph 0023) {taken as a cationic quaternary polymeric material} and not indicated as being water soluble, with a ratio of water soluble, nonionic polymer material to water insoluble quaternary polymer material being 20-95% to 5-80% or about from 95/5 of non-cationic/cationic to 20/80 non-cationic/cationic; The range overlaps the instant Claim 1 range to 95%; the polymers would be expected to comprise non-cationic and cationic monomers {addressing D and E}; the ratio would further be applicable to polymeric material amounts {addressing F}.
5. Hood et al. also discloses compositions comprising d-limonene (Example 17 page 5-6 and Example 13 page 5); the material being known in the art to have a Kovat's value of about 1030, as would be expected to be known in the art {as evidenced by Combariza et al. Table 1 DB-1 entry 10 p 644}; the compositions are indicated to hold the d-limonene, {taken to be a top note material as it comprises a Kovat's value of between 1000 and 1400 as provided by the Applicant s' arguments, 01 July 2010, first

page Top Note/Kovat's Index section, paragraphs 3-4}, to a greater extent than compositions not comprising the polymeric material (Example 17 page 5-6 and Example 13 page 5) {addressing J}. Therefore, the response factor of the benefit agent is would be expected to be at least about 1.5 as the benefit agent of the instant application and the prior art are identical, within the limitations identified by the Claim 1, and as the polymeric particles in the instantly claimed invention and contains a top note material in the 1000-1400 range {addressing H}.

6. The compositions taught by Hood et al. preferably have a viscosity of between 2000 and 20,000 cps (page 2, 0024) {encompassing and addressing the range of K}.

Further as to Claim 1 and 9:

7. Although Hood et al., further teaches that a silicone material {taken as an adjunct material} is employed to facilitate the delivery of the non-encapsulated material (page 6, 0125); and that dye is also indicated to also be allowed in a composition (Example 13 page 5) {addressing Claim 9}; Hood et al. do not teach further the dispersion comprising a colloidal stabilizer adjunct ingredient.

8. On the other hand, Rollat et al., teach utilizing colloidal silica in order to sterically stabilize polymer particles in a dispersion (paragraph 0048). Rollat et al., teach the colloidal stabilizer limits the particles coalescence and yields uniform particles, thereby preventing aggregation of the particles and enabling a more homogeneous dispersion (paragraph 0048) {addressing J}.

9. Rollat et al., further teach of a non-encapsulated benefit agent delivery system comprising an aqueous dispersion of a water insoluble polymer (paragraph 0017), and a

benefit agent (paragraph 0053) wherein the particle comprises at least one cationic monomer and one or more non-cationic monomers (paragraphs 0052, 0053). Rollat et al., also teach the polymer and benefit agent non-polymerically associated in a liquid matrix (paragraph 0048). Therefore, Rollat et al. and Hood et al. are taken as analogous arts.

10. Although Hood et al. also teach the benefit agent delivery system comprising viscosities ranging from 1,000 to 45,000 cps (paragraph 0024); the reference does not further teach viscosities ranging from 7000-10,000cps.

11. On the other hand, Guskey et al. teach styling shampoo compositions (Abstract) comprising hydrophilic monomers in combination with hydrophobic monomers in a manner in which to provide water-insolubility (col 7 lines 44-48). The hydrophilic monomers consist of vinyl pyrrolidone, among others monomers (col 7 lines 48-65) and hydrophobic monomers consist of C1-C8 methacrylic acid esters among others (col 7-8 bridging paragraph). Guskey et al. indicate that the viscosity of the final composition comprises a range of 2000-12,000 cps and is indicated to be varied as needed employing salt (col 31-32 bridging paragraph).

12. As Guskey et al. teach that viscosity is a desired property that can be varied, it is the Examiner's position that formula composition and its viscosity are result effective variables because changing them will clearly affect the type of product obtained. See MPEP § 2144.05 (B). Case law holds that "discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art." See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

13. In view of this, it would have been obvious to one of ordinary skill in the art to utilize appropriate formulation experimentation and testing, including those within the scope of the present claims, so as to produce desired end results {further addressing the instant Claim 1 range indicated for K}.

14. Hood et al. do not further teach the employment of compositions comprising glass transition temperatures from 50°C to 120°C.

15. On the other hand, Guskey. et al., further teach a benefit agent delivery system wherein the glass transition temperature ranges from at least -20°C up to 80°C and preferably to 60°C (col 7 lines 25-29) {addressing C}.

16. Also, Guskey. et al. teaches that there is no upper limit as to the value of T<sub>g</sub>, the preferred range overlaps with the composition range of the Applicants. It is well settled that where the prior art describes the components of a claimed compound or compositions in concentrations within or overlapping the claimed concentrations a prima facie case of obviousness is established. See *In re Harris*, 409 F.3d 1339, 1343, 74 USPQ2d 1951, 1953 (Fed. Cir 2005); *In re Peterson*, 315 F.3d 1325, 1329, 65 USPQ2d 1379, 1382 (Fed. Cir. 1997); *In re Woodruff*, 919 F.2d 1575, 1578 16 USPQ2d 1934, 1936-37 (CCPA 1990); *In re Malagari*, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974).

17. As Hood et al. teach of applications for the compositions to be applicable to hair care products (Abstract), and as Rollat et al. and Guskey et al. also teach compositions applicable to hair care products (see each reference's Title), the arts are all taken as analogous.



18. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hood et al., as evidenced by Combariza et al., in view of Rollat et al., in further view of Guskey. et al., to meet the glass transition temperature requirements of the claimed polymer particle as optimization of a result effective variable requires only routine skill in the art (MPEP 2144.05 II A); and to further employed the fragrance material suggested by Hood et al. that is known in the art to have a Kovat's value in the range between 1000 and 1400; as evidenced by Combariza et al., that would also be expected to be applicable to top note fragrance and lower Kovat's index materials; with reasonable expectation of success.

19. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hood et al. (US 2002/0058015); as evidenced by Combariza et al. (Journal of High Resolution Chromatography 1994 vol 17 pp 643-646), in view of Rollat et al., and further in view of Guskey et al. (US 6040282) and as further evidenced by the International Journal of Toxicology (1982 vol 1 no 4 pp 55-80); as applied to Claims 1, and 9 above; and as further evidenced by Marques et al. (Journal of the Brazilian Chemical Society vol 11 no 6 pp 592-599).

As to Claim 7:

20. The references do not specifically teach of perfuming fragrances with higher Kovats numbers greater than 1700.

21. On the other hand, Hood et al. further teach of compositions comprising myristyl myristate, a material with a detectable odor that is water insoluble {as evidenced by the

International Journal of Toxicology, page 57 1<sup>st</sup> paragraph}, having a high boiling point {taken to correspond to a low vapor pressure and low amount of olfactorially detectable material}, as would be expected by one of ordinary skill in the art {as evidenced by the International Journal of Toxicology, pages 55-56 and Table 1}; towards applicable materials, the properties thereof being inherent. As the vapor pressure of the Myristyl myristate is taken as being low, while exhibiting an odor, it would be expected to have a higher Kovats number as the Kovats number is taken to be directly proportional to the number of carbon atoms in an organic material {as evidenced by Marques et al., page 594 col 1-2 bridging paragraph}.

22. For example, the Kovats value for d-limonene being 1024 corresponding to a formula of  $C_{10}H_{16}$  with a carbon number of 10 and a molecular weight of 136 {per figure A below, as drawn by ChemDraw Ultra 12.0}, and for myristyl myristate ( $C_{28}H_{56}$ ), a simple estimation would correspond to a Kovats number of higher than twice that of d-limonene, or greater than 2000. As the fragrance taught in Hood et al. is (Examples 13 and 17 pages 5-6) represented by d-limonene, the additional fragrance of Example 15 of the Hood et al. reference (page 5), also comprising myristyl myristate, is to be a composition comprising both d-limonene and myristyl myristate.

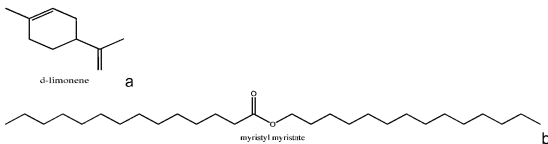


Figure A. Structures for d-limonene ( $C_{10}H_{16}$ ) and myristyl myristate ( $C_{28}H_{56}$ ).

Further as to Claims 6 and 8:

23. The LKI perfume raw material {d-limonene} would be expected to provides a first Average Response Factor ( $ARF_{LKI}$ ) and the HKI perfume raw material {myristyl myristate} would be expected to provide a second Average Response Factor ( $ARF_{HKI}$ ) with the perfume polymeric particle having a ratio of  $ARF_{LKI}/ARF_{HKI}$  of at least a value of about 1.2 as the composition polymer particles would be expected to have an affinity ratio of with at least 1.2 times greater than the second affinity as measured by Affinity Test Protocol III, as the polymer with fragrant ingredients read on the instant Claim 1, Claim 8 {addressing Claim 8}.

24. Further, as to the polymer delivery system composition and the Claim 6 invention:

25. As the material compositions taught are also indicated in phases, with and without water soluble components are taken as being separable (e.g., Example 15 of Hood et al., comprising different phases) and the composition of Example 15 has two known fragrant materials, one of high and the other of lower Kovats numbers, and as the polymer particles are comprised having the same or similar of instant Claim 1., are taught by Hood et al. the material properties would be expected to have same or similar properties of those claimed.

26. Additionally where the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to

require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on." In re Swinehart, 169 USPQ 226 (CCPA 1971).

27. Therefore, it would have been further obvious to one of ordinary skill in the art at the time the invention and to have employed a fragrant material with a high Kovats number, along with the fragrance material as taught by Hood et al. that is known in the art to have a Kovat's value in the range between 1000 and 1400; that would also be expected to be applicable to top note fragrance and lower Kovat's index materials while possessing compositional properties calculated with the materials with the same or similar properties; as improved by Rollat et al. and optimized by Guskey et al., with a reasonable expectation of success.

### ***Response to Arguments***

Applicant's arguments filed 01 July 2010, with respect to claims 1-6-9, have been considered; some are moot in view of the new ground(s) of rejection.

Applicant has amended Claim 1 to further embody a limitation a ratio of cationic to non-ionic materials to be in a specific range. The Applicants' representative has also indicated that the Kovat's index within a range of 1000-1400 is to be taken as indicating that materials possessing values within this range are required to be top note materials and has indicated this with placement of the identified term into Claim 1. Accordingly, an additional informational, secondary reference(s) have been added to indicate the Kovat's value and top note and the nature of the fragrance materials in compositions taught by Hood et al.

Applicants' argue {pages 1-3 of arguments}:

That top note language, as amended to the claims, is not addressed by Rollat et al.

Applicants' argue {pages 2-3 of arguments}:

That properties of Rollat et al. are not inherent.

In response, not all previous rejections are now applicable. The Rollat et al. rejection previously applied as a primary reference, has been removed.

Applicants further argue {page 4 of arguments}:

That Hood et al. does not teach of the top note element required by the Claims.

In response, Hood et al. teaches of using material that qualifies as a fragrance with a Kovat's number between 1000 and 1400 that would be expected to be known in the art as evidenced by Combariza et al.

Current rejections stand.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Examiner Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AARON GRESO whose telephone number is (571)270-7337. The examiner can normally be reached on M-F 0730-1700.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571 272 1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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